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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,008	06/04/2002	Grant Alan Ingram	202-0405	7208

7590 10/03/2005

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EXAMINER

TRAN, DIEM T

ART UNIT	PAPER NUMBER
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3748

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	Application No. 10/064,008	Applicant(s) INGRAM ET AL.	
	Examiner Diem Tran	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-23 is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-15 and 19-20 is/are rejected.
- 7) ☒ Claim(s) 6, 7 and 16-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                   |                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                              | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.                                                |

## DETAILED ACTION

### *Claim Objections*

Claim 14 is objected to because of the following informalities:

-In claim 14, line 6, --that of the-- should be inserted after “than” and “.” should be changed to --, and--. Appropriate corrections are required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

*Claims 1-4, 8-13 are rejected under 35 U.S.C. 102(b) as being anticipated by*

*Ohtsuka et al. (US Patent 5,357,928).*

Regarding claims 1, 8, 10-13, Ohtsuka discloses a method for controlling an engine have at least first and second groups of cylinders, the engine coupled to an emission control device, comprising:

in response to engine starting, and during emission control device warm-up:

operating the first group of cylinders at a first ignition timing; and operating the second group of cylinders at a second ignition timing more retarded than said first group (see col. 9, lines 60-65, col. 10, lines 24-29).

Regarding claims 2-4, 9, Ohtsuka further discloses adjusting at least one of airflow or injected fuel or ignition timing at least the first group of cylinders in response to a measured engine speed (see col. 9, lines 60-65).

*Claims 14, 15, 19, 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Koga et al. (US Patent 5,657,625).*

Regarding claims 14, 15, Koga discloses a method for controlling an engine have at least first and second groups of cylinders, the engine coupled to an emission control device, comprising:

after engine starting, operating the engine in a first mode including operating the first group of cylinders at a first ignition timing; and operating the second group of cylinders at a second ignition timing more retarded than said first group, and in response to a request, transitioning the engine to a second mode of operation (see Figure 8, col. 28, lines 10-14).

Regarding claim 19, Koga further discloses that said second mode of operation includes operating both said first and second ignition timing at substantially the same value (see col. 27, lines 22-35).

Regarding claim 20, Koga further discloses that said request is based on an indication that the emission control device has reached a predetermined temperature (see col. 27, lines 53-67, col. 28, lines 1-9).

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

*Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtsuka et al. (US Patent 5,357,928) in view of Surnilla (US Patent 6,543,219).*

Ohtsuka discloses all the claimed limitations as discussed in claim 2 above, however, fails to disclose that said engine control signal is a desired engine torque. Surnilla teaches that it is conventional in the art, to retard ignition timing for each groups of cylinder in accordance to the desired engine torque (see col. 5, lines 27-40).

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the teaching of Surnilla in the Ohtsuka device, since the use thereof would have improved the engine performance.

#### *Allowable Subject Matter*

Claims 21- 23 are allowed.

Claims 6, 7, 16, 17, 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### *Conclusion*

Any inquiry concerning this communication from the examiner should be directed to Examiner Diem Tran whose telephone number is (571) 272-4866. The examiner can normally be reached on Monday -Friday from 8:00 a.m.- 6:00p.m.

Art Unit: 3748

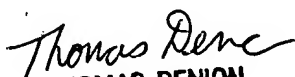
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reached on (571) 272-4859. The fax number for this group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 800-786-9199 (toll-free).

DT  
September 28, 2005



Diem Tran  
Patent Examiner  
Art unit 3748



**THOMAS DENION**  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700